Amendments to the Specification:

Please amend the specification as follows:

Please replace paragraph number 0029, with the following rewritten paragraph:

By "determining the temperature difference" between the temperature of the coolant entering the heater core and the temperature of the air exiting the heater core, it is meant any method or apparatus that may be used to measure, estimate, approximate, etc., the temperature difference between the coolant and the heated air that will allow the present invention to be practiced. Thus, in an embodiment of the present invention, the temperature difference may be determined by measuring the temperature of the incoming coolant and the air exiting the heater core. This embodiment may be implemented, for example, by placing a first temperature sensor adjacent to the heater core on the outlet side in the air path of the heated air and placing a second temperature sensor on or in the coolant pipe that provides coolant to the heater core, adjacent to the heater core. Control logic for implementing this embodiment may follow an algorithm according to Fig. 7.

Please replace paragraph number 0035, with the following rewritten paragraph:

It is noted that this second predetermined temperature difference (SFF deactivation) may be different than the predetermined temperature difference used to determine when to start the supplemental flow function (SSF). That is, the temperature difference relied on to determine whether or not to activate the supplemental flow function may be different than the temperature difference relied on to determine whether to deactivate the supplemental flow function. In one embodiment of the present invention, this latter temperature difference is less than the former temperature difference. By way of example only and not by way of limitation, the first temperature difference may be a temperature difference of 20 degrees C, while the second temperature difference may be a temperature difference of 16 degrees C. Utilizing different values of temperature difference may prevent rapid reactivation and deactivation of the supplemental flow function. For example, if the temperature difference

over a span of, say, 10 seconds, increases [[drops]] from 19 degrees C to just above 20 degrees C, the supplemental flow function would be activated. If the first and second temperature differences were set to be close to one another, for example, 20 degrees C and 19 degrees C, respectively, the supplemental flow function would probably almost immediately be deactivated, as the temperature difference might change to just below 19 degrees quickly upon activation of the supplemental flow function. Then, after perhaps 10 or 20 seconds, when the temperature difference drops below 20 degrees C, the supplemental flow function would again be activated. Thus, improved results may be obtained by utilizing a large enough temperature difference between the two temperature differences so that a smoother operation and more efficient operation of the supplemental flow function will result.

Please replace paragraph number 0050, with the following rewritten paragraph:

Thus, by utilizing equation (4) in equation (1), values of Tao may be determined for a given Cc/Ch value and given Tci and Tai values. It is further noted that embodiments of the present invention may be practiced by relying on the teachings contained in SAE Technical Paper Series 960684, entitled "HVAC System Analysis Method for Testing," authored by Eisenhour, Kawakami and Tsunada, presented at the International Congress & Exposition in Detroit Michigan in February 26-29, 1996 [[2996]], the contents of which are incorporated herein by reference in their entirety.

Please replace paragraph number 0060, with the following rewritten paragraph:

Fig. 5 shows a graphical representation of how an exemplary control system implemented according to the present invention may behave utilizing an auxiliary electric pump to increase the flow rate of coolant through a heater core. From Fig. 5, it can be seen that the mix% favoring full hot air will have a tendency to require SFF activation.

Implementation Logic

Please replace paragraph number 0061, with the following rewritten paragraph:

The present invention includes a method for [[to]] practicing the invention, software to practice the invention, and apparatuses configured to implement the present invention, including a climate control device for a cabin of an automobile. An exemplary apparatus for practicing the present invention may be seen in Fig. 6, which shows a schematic representation of a coolant flow control device according to an embodiment of the invention. Fig. 6 shows an electronic processor 100, which is in communication with an engine 200, an auxiliary pump 300, the outlet of a heater core 400, a coolant flow pipe 500 at the inlet to the heater core 400, and a memory 150, which may be a part of the processor 100 or may be separate from the processor 100. The processor 100 may be adapted to automatically determine the temperature difference between the temperature of the coolant at the first flow rate before the coolant enters the heater core 400 and a temperature of air exiting the heater core 400, and to automatically command an increase in the flow rate of the coolant to a second flow rate higher than the first flow rate if the temperature difference is greater than a stored predetermined temperature difference stored in the memory 150 [[100]]. Still further, processor 100 may be adapted to utilize an algorithm based on some or all of the equations, variables, and/or constants discussed herein. Memory 150 may store the variables and/or constants that will be used by the processor to automatically implement the present invention. These variables and constants may be stored in look-up tables in the memory. Still further, the memory may store an array of solutions for some or all of the above equations, such that calculations by the processor may be reduced and/or eliminated. Still further, the memory may store solutions to equations in a manner such that all that is necessary is to look-up those solutions based on an array of known values.

Please replace paragraph number 0064, with the following rewritten paragraph:

The coolant flow device, methods, and software according to the present invention may be utilized in conjunction with a climate control device of an automobile. By way of example only and not by way of limitation, the methods and apparatuses and software according to the present invention may be utilized in a system for automatically controlling a climate in a cabin of an automobile according to U.S. Patent Application Number 10/373,202 to Eisenhour, filed on February 26, 2003, entitled, Dual Zone Automatic Climate Control Algorithm Utilizing Heat Flux Analysis, the contents of which are incorporated by reference herein in their entirety. Thus, some embodiments of the present invention include providing conditioned air to the cabin from a conditioned air outlet, where the present invention is utilized to ensure or otherwise improve the chances that an adequate outlet temperature will be achieved. [[.]]